

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listing of claims in the above-identified application.

Listing of Claims:

1. (Currently Amended) A dual diversity receiver that includes first and second antennas to receive first and second radio signals, wherein the first and second antennas produce first and second antenna signals that are representative of the received radio signals, the receiver comprising:

a first LNA that receives the first antenna signal and produces a first amplified signal;

a second LNAs that receives the second antenna signal and produces a second amplified signal; and

selection logic to ~~determine which of the first and second amplified signals has a greater received power characteristic; continuously perform monitoring of a signal characteristic of said first and said second amplified signals, and to select one of the first LNA and the second LNA based upon said monitoring associated with that amplified signal~~ so that its output is processed by the receiver; wherein said monitoring is performed so as to maintain both phase and amplitude of said output.

2. (Currently Amended) The receiver of claim 1, wherein the first and second LNAs further comprise first and second bias generator circuits that control the operation of their respective LNA based on a selection signal.

3. (Currently Amended) The receiver of claim 1, wherein ~~the selection logic comprises logic to measure the received power characteristic~~; said selection logic is operative to switch between said first and said second LNA when the currently selected signal fades below a selected threshold.

4. (Currently Amended) The receiver of claim 1, wherein ~~the selection logic comprises logic to select the alternate LNA when its received power characteristic exceeds that of the selected LNA~~; said selection logic is operative to switch between said first and said second LNA when the elapsed time receiving the current signal exceeds the time coherence of the wireless channel.

5. (Currently Amended) A method for operating a dual diversity receiver that includes two antennas to receive a radio signal, wherein each antenna produces an antenna signal that is representative of the radio signal, the method comprising the steps of:

inputting the antenna signal from each antenna to a corresponding LNA that produces an amplified signal;

determining which amplified antenna signal has a greater received power signal characteristic; wherein said determining is performed so as to maintain both phase and amplitude of said amplified signals;

activating the LNA associated with the antenna signal having the greater received power signal characteristic, so that the amplified antenna signal from the activated LNA is processed by the receiver; and

repeating the steps of determining and selecting.

6. (Currently Amended) The method of claim 5, further comprising using a digital filter to measure the received-power said signal characteristics.

7. (New) The method of claim 6 wherein said digital filter is an IIR filter configured to perform a channel estimate.

8. (New) The receiver of claim 1 wherein said selection logic comprises a switching apparatus integrated within said first and said second LNAs; wherein said switching apparatus is operative to switch said output from said first and said second LNAs.

9. (New) The receiver of claim 8 wherein said switching apparatus is positioned in the signal path after said first and said second LNAs.

10. (New) A dual diversity receiver system comprising:
a first antenna to receive a radio signal and produce a first antenna signal;
a second antenna spatially separated from said first antenna to receive said radio signal and produce a second antenna signal;
a first LNA to receive said first antenna signal and produce a first amplified signal;
a second LNA to receive said second antenna signal and produce a second amplified signal; and

selection logic to select one of the first LNA and second LNA based upon comparison of a first measured value of a signal characteristic of said first amplified signal and a second measured value of said signal characteristic of said second amplified signal; wherein said signal

characteristic of said first and said second amplified signals is measured so as to maintain both phase and amplitude of said amplified signal.

11. (New) The receiver of claim 10 wherein said signal characteristic is a signal power level.

12. (New) The receiver of claim 11 wherein said selection logic is operative to switch between said first and said second LNA when said signal power level falls below a selected threshold.

13. (New) The receiver of claim 10 wherein said selection logic is operative to switch between said first and said second LNA when the elapsed time receiving the current signal exceeds the time coherence of the wireless channel.

14. (New) The receiver of claim 10 wherein said selection logic comprises a switching apparatus integrated within said first and said second LNAs.

15. (New) The receiver of claim 10 wherein said switching apparatus is positioned in the signal path after said first and said second LNAs.

16. (New) The receiver of claim 10, further comprising using a digital filter to measure said signal characteristic.

17. (New) The receiver of claim 16 wherein said digital filter is an IIR filter configured to perform a channel estimate.